

REMARKS

Reconsideration and allowance of this application are respectfully requested. Claims 1, 5, 10 and 13 have been amended. Claims 1-3, 5-11, 13-15, 17 and 19 are pending in the application. The rejections are respectfully submitted to be obviated in view of the amendments and remarks presented herein.

As a preliminary matter, the Examiner has again not acknowledged on the PTOL-326 form that all certified copies of the priority documents have been received, as box 1 has not been checked. We will request the Examiner to acknowledge receipt of all certified copies of the priority documents in the next Office communication **by checking all three boxes 12) a) and 1.**

Claim Rejections Under 35 U.S.C. § 103(a)

Claims 1, 2, 10, 17 and 19 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Joung et al. (U.S. Patent Application Publication No. US 2003/0131360) in view of Dantwala et al. (U.S. Patent No. 6,847,406) and further in view of Saitoh et al. (U.S. Patent No. 6,839,851). The rejection is respectfully traversed.

Claim 1, as amended, is patentable because Joung in view of Dantwala and further in view of Saitoh fails to disclose each and every element of the claim.

In Joung, a stream source device is disclosed to receive external signals and generate a packet stream. As shown in FIG. 2 of Joung, a digital broadcast receiving unit (121) receives a digital broadcast signal through an external antenna and transforms the received digital broadcast signal into a transmission packet stream form to output to a multiplexer (125) (paragraphs [0044] and [0049]). A digital signal receiving unit (122) receives a transmission packet stream

corresponding to digital video and audio signals transmitted from an external digital device, and then outputs the received transmission packet stream to the multiplexer (125) (paragraph [0050]). An analog signal receiving unit (123) receives analog video and audio signals transmitted from external analog equipment, and then transforms the received analog video and audio signals into a transmission packet stream to output to the multiplexer (125) (paragraph [0051]). The multiplexer (125) switches the transmission packet streams inputted from the digital broadcast receiving unit (121), the digital signal receiving unit (122), and an encoder (124) (which encodes the transmission packet stream output from the analog signal receiving unit (123)), in accordance with the control of a central processing unit (110), to select one of the transmission packets streams (paragraph [0052]). A transmission packet stream processing unit (130) processes the selected transmission packet stream and outputs the processed stream to a memory (140) (paragraph [0053]). A wireless transmitting/receiving unit (150) reads the transmission packet stream stored in the memory (140) and then transmits the read transmission packet stream wirelessly (paragraph [0054]).

Although Joung discloses the digital signal receiving unit (122) and the analog signal receiving unit (123), Joung is silent regarding any receiving of at least a progressive scanning image signal and an external interlaced scanning image signal and selection of the external interlaced scanning image signal or a converted interlaced scanning image signal. In particular, there is no teaching or suggestion in Joung that its stream source device (100), which transmits an HD transmission packet stream wirelessly to a display device, and also converts the HD transmission packet stream into an SD transmission packet stream.

The Examiner, however, relies upon Dantwala for a video converter system which performs video conversion. As shown in FIG. 2 of Dantwala, a video converter system (200) implemented within a video receiver (101) includes inputs (102a and 102b) for receiving standard definition (480 resolution) and high definition (1080 resolution) video signals, respectively. The video converter system (200) of Dantwala includes a standard definition output (103a), such that when high definition video signals are selected, the frames are first converted to standard definition resolution by down-conversion or sub-sampling, performed by a pre-filter and down-sample unit (202) (column 3, lines 41-67). A multiplexer (201) selects from the SD input (102a) and the HD input (102b) converted to standard definition, to be output as the SD output (103a). In such a way, Dantwala's video converter system (200) converts the HD video signal into an SD video signal.

However, in the present invention (see, e.g., paragraphs [0040] to [0042]), a down converter (201-33) converts the HD (1080p) image signal into the SD (480i) image signal, that is, the converter converts a progressive scanning type signal into an interlaced scanning type signal. However, Joung and Dantwala do not disclose such features of the present invention. Accordingly, neither Joung nor Dantwala, alone or in combination, teaches or suggests, *inter alia*, “a converter, ***which converts the progressive scanning image signal input from outside into the interlaced scanning image signal*** and outputs the interlaced scanning image signal as an output of the converter ***by separating fields from the progressive scanning image signal and transmitting the separated fields,***” as recited by amended claim 1 (emphasis added).

Also, neither Joung nor Dantwala disclose an encoding unit which converts the external interlaced scanning image signal input from outside or the output of the converter (the interlaced

scanning image signal converted from the progressive scanning image signal input from outside) into the second TS. Accordingly, the Examiner has relied upon Saitoh for the teaching of a stream conversion circuit (407) (as shown in FIG. 4 of Saitoh) which converts a signal stream into a transport stream that can be transmitted through a digital signal bus (column 3, line 60 to column 4, line 26).

However, Saitoh also fails to teach or suggest “a converter, ***which converts the progressive scanning image signal input from outside into the interlaced scanning image signal*** and outputs the interlaced scanning image signal as an output of the converter **by separating fields from the progressive scanning image signal and transmitting the separated fields,**” as recited by amended claim 1.

Therefore, the *combination* of Joung, Dantwala and Saitoh, in view of the references’ above-described deficiencies of failing to disclose a conversion of a progressive scanning type signal into an interlaced scanning type signal, the combination of Joung, Dantwala and Saitoh thus would fail to teach or suggest every element as recited by amended claim 1.

Claim 10 is a related independent method claim, and is patentably distinguished over Joung in view of Dantwala and further in view of Saitoh for analogous reasons. Claims 2, 17 and 19 are dependent claims which are also patentably distinguished over Joung in view of Dantwala and further in view of Saitoh at least in view of their dependencies as well as for their additionally recited elements.

Reconsideration and withdrawal of the rejection under 35 U.S.C. § 103(a) are respectfully requested.

Claims 3, 8 and 11 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Joung in view of Dantwala in view of Saitoh and further in view of Levandowski (U.S. Patent No. 6,704,060). The rejection is respectfully traversed.

Claims 3, 8 and 11, which depend from claim 1 or claim 10, are patentable for at least the reasons submitted above for the respective base claims and because Levandowski fails to make up for the deficiencies of Joung in view of Dantwala and further in view of Saitoh. In Levandowski, although the triple decoder and CPU (216) as shown in FIG. 2 receives an SD transport stream, an HD/SD transport stream, and an ATSC transport stream, all of these streams are processed concurrently by the triple decoder and CPU (216) into respective MPEG or ATSC bit-streams (column 3, lines 10-29). One of the three bit-streams is decoded internally by the triple decoder and CPU (216) to provide a standard-definition television signal, NTSC video and a corresponding audio signal (column 3, lines 29-32). Another of the three transport streams is provided to an external high-definition/standard-definition (HD/SD) television signal decoder (220) (column 3, lines 33-35).

As is described and shown by Levandowski, the triple decoder and CPU (216) processes all of the input transport streams and ***outputs all of the streams after processing***. Therefore, Levandowski does not teach or suggest any switching or selection occurring in the triple decoder and CPU (216), nor does Levandowski teach or suggest a switching or selection between an internal SD image signal and an external or input SD image signal.

Accordingly Levandowski also fails to teach or suggest, *inter alia*, “a converter, which converts the progressive scanning image signal input from outside into the interlaced scanning image signal and outputs the interlaced scanning image signal as an output of the converter by

separating fields from the progressive scanning image signal and transmitting the separated fields; and an encoding unit, which converts the external interlaced scanning image signal input from outside or the output of the converter into the second TS,” as recited by amended claim 1, and similarly fails to teach or suggest, *inter alia*, “receiving at least one of an external progressive scanning image signal and an external interlaced scanning image signal, converting the external progressive scanning image signal into an internal interlaced scanning image signal by separating fields from the progressive scanning image signal and transmitting the separated fields if the external progressive scanning image signal is received, one switching between one of the internal interlaced scanning image signal and the external interlaced scanning image signal; and converting one of the internal interlaced scanning image signal and the external interlaced scanning image signal into a second TS,” as recited by amended claim 10.

Thus, because none of the cited references teach or suggest at least the above-discussed elements, amended claims 1 and 10 are both patentably distinguished over the *combination of* Joung in view of Dantwala in view of Saitoh and further in view of Levandowski. Claims 3, 8 and 11, which depend from claim 1 or claim 10, are also patentably distinguished for at least the reasons submitted for their respective base claims as well as for their additionally recited elements.

Reconsideration and withdrawal of the rejection under 35 U.S.C. § 103(a) are respectfully requested.

Claims 5, 7, 9 and 13 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Joung in view of Dantwala and further in view of Saitoh and further in view of Margulis (U.S. Patent Application Publication No. US 2001/0021998). The rejection is respectfully traversed.

Claims 5, 7, 9 and 13, which depend from claim 1 or claim 10, are patentable for at least the reasons submitted above for the respective base claims and because Margulis fails to make up for the deficiencies of Joung in view of Dantwala and further in view of Saitoh.

In Margulis, a subsystem processor (518) is disclosed to receive the digital video from digitizer (516), the digital audio from the ADC (530), and the digital A/V on path (536) and combines all of these received signals to form one transport stream (paragraphs [0015], [0062], [0063] and [0069]). Furthermore, Margulis generally states that the subsystem processor (518) “may receive high-definition television (HDTV) video programming and responsively generate a standard definition television stream” (paragraph [0062]).

Even though Margulis teaches the possible reception of digital video signals as well as high-definition video, there is no teaching or suggestion in Margulis of, *inter alia*, “a converter, which converts the progressive scanning image signal input from outside into the interlaced scanning image signal and outputs the interlaced scanning image signal as an output of the converter by separating fields from the progressive scanning image signal and transmitting the separated fields; and an encoding unit, which converts the external interlaced scanning image signal input from outside or the output of the converter into the second TS,” as recited by amended claim 1, and Margulis similarly fails to teach or suggest, *inter alia*, “receiving at least one of an external progressive scanning image signal and an external interlaced scanning image

signal, converting the external progressive scanning image signal into an internal interlaced scanning image signal by separating fields from the progressive scanning image signal and transmitting the separated fields if the external progressive scanning image signal is received, one switching between one of the internal interlaced scanning image signal and the external interlaced scanning image signal; and converting one of the internal interlaced scanning image signal and the external interlaced scanning image signal into a second TS,” as recited by amended claim 10.

Thus, because none of the cited references teach or suggest at least the above-discussed elements, amended claims 1 and 10 are both patentably distinguished over the *combination of* Joung in view of Dantwala in view of Saitoh and further in view of Margulis. Claims 5, 7, 9 and 13, which depend from claim 1 or claim 10, are also patentably distinguished for at least the reasons submitted for their respective base claims as well as for their additionally recited elements.

Claims 6 and 14 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Joung in view of Dantwala in view of Saitoh in view of Levandowski and further in view of Margulis. The rejection is respectfully traversed.

As discussed above, claims 1 and 10 are patentably distinguished over Joung in view of Dantwala in view of Saitoh and further in view of Levandowski. As also discussed above, Margulis fails to make up for the deficiencies of Joung in view of Dantwala in view of Saitoh and further in view of Levandowski.

None of the cited references, either alone *or in combination*, teaches or suggests, *inter alia*, “a converter, which converts the progressive scanning image signal input from outside into

the interlaced scanning image signal and outputs the interlaced scanning image signal as an output of the converter by separating fields from the progressive scanning image signal and transmitting the separated fields; and an encoding unit, which converts the external interlaced scanning image signal input from outside or the output of the converter into the second TS,” as recited by amended claim 1. Similarly, the cited references, either alone *or in combination*, also fails to teach or suggest, *inter alia*, “receiving at least one of an external progressive scanning image signal and an external interlaced scanning image signal, converting the external progressive scanning image signal into an internal interlaced scanning image signal by separating fields from the progressive scanning image signal and transmitting the separated fields if the external progressive scanning image signal is received, one switching between one of the internal interlaced scanning image signal and the external interlaced scanning image signal; and converting one of the internal interlaced scanning image signal and the external interlaced scanning image signal into a second TS,” as recited by amended claim 10.

Accordingly, amended claims 1 and 10 are both patentably distinguished over the *combination of* Joung in view of Dantwala in view of Saitoh in view of Levandowski and further in view of Margulis. Claims 6 and 14, which depend from claim 1 or claim 10, are also patentably distinguished for at least the reasons submitted for their respective base claims as well as for their additionally recited elements.

Reconsideration and withdrawal of the rejection under 35 U.S.C. § 103(a) are respectfully requested.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the

Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

/Lenny R. Jiang/

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

Lenny R. Jiang
Registration No. 52,432

WASHINGTON OFFICE

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